

SURGICAL INSTRUMENTS AND METHOD FOR CORNEAL REFORMATION

ABSTRACT OF THE DISCLOSURE

[00030] A surgical method of corneal reformation reduces the risk of trauma and shortens overall recovery while yielding improved visual acuity includes making a relatively shallow incision of no more than about 85 microns deep into the corneal epithelium, separating the corneal epithelial sheet from the underlying Bowman's Membrane using an epithelial separator or a specialized cannula, and lifting the epithelial sheet away from the ablation zone so that the Bowman's Membrane and underlying stromal bed can be reformed. Multiple surgical instruments include the optional use of vibration with an epithelial separator or cannula to separate an epithelial sheet from the cornea of no more than about 85 microns thick.